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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,601	04/21/2006	Wolfgang Klapp	P29517	2100

7055 7590 10/23/2008

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EXAMINER	
FISCHER, JUSTIN R	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
10/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
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Office Action Summary	Application No.	Applicant(s)	
	10/576,601	KLAPP ET AL.	
	Examiner	Art Unit	
	Justin R. Fischer	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-8,10,11,13,15 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-8,10,11,13,15 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 19, 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 7, 8, 10, 11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howland (US 2002/0074068) and further in view of Tyobo (JP 60-28538, newly cited) and Loose (DE 2905136, newly cited).

Howland is directed to a bicycle tire construction comprising an anti-puncture device, wherein said device can include a single layer or multiple layers of fabric (Paragraph 6). Howland further teaches that the anti-puncture device can be formed of a wide variety of materials, including VECTRAN™ , which is analogous to the claimed polyester/polyarylate filaments (Paragraph 27). The reference, however, fails to expressly describe the specific makeup of the reinforcing elements. In any event, the

claimed fineness, thread count, and thread number (number of filaments per thread) are consistent with commonly used reinforcing elements in the tire industry, as shown for example by Tyobo (Abstract) and Loose (Abstract). It is emphasized that the claims define broad ranges for each of the parameters and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed combination of characteristics. Lastly, it is emphasized that while VECTRAN™ is described as a non-preferred embodiment, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments (see MPEP 2123).

Regarding claim 2, one of ordinary skill in the art at the time of the invention would have found it obvious to use a wide variety of filaments, including those having diameters less than 40 microns. The particular filament, and thus thread/yarn construction, is a function of the intended use of the tire and the specific construction of the anti-puncture device (e.g. number of layers). Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed diameters.

With respect to claims 3 and 10, VECTRAN™ satisfies the claimed chemical formulas.

Regarding claims 7 and 8, the anti-puncture device of Howland is formed of woven fabric layers (warp and weft threads). In this instance, threads formed of VECTRAN™ are seen to have some degree of stretchability in the circumferential

direction of the tire (claims do not require a separate thread material, such as polyamide or polyester).

As to claims 11, 13, and 15, as noted above, Loose recognizes the known use of a thread count between 250 and 450 cords per 10 cm, which incorporates fifty percent of the claimed range.

4. Claims 1-3, 7, 10, 11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazusa (US 4,649,979) and further in view of Howland, Tyobo, and Loose.

Kazusa is directed to a bicycle tire construction comprising a breaker between carcass layers, wherein said breaker can include at least one ply (Column 1, Lines 60-70). The reference suggests the use of a wide variety of cord materials, including aromatic polyamides (KEVLAR™). While the reference fails to expressly suggest the use of VECTRAN™ , such a material is a well recognized "high performance" fiber that is commonly used as an equivalent alternative to KEVLAR™ , as shown for example by Howland (Paragraph 27). It is emphasized that Howland and Kazusa are both directed to tire constructions including an anti-puncture or cut resistant arrangement. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to use the claimed fiber materials in the breaker of Kazusa.

As to the characteristics of the reinforcing elements, the claimed fineness, thread count, and thread number (number of filaments per thread) are consistent with commonly used reinforcing elements in the tire industry, as shown for example by Tyobo (Abstract) and Loose (Abstract). It is emphasized that the claims define broad

ranges for each of the parameters and applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed combination of characteristics.

Regarding claim 2, one of ordinary skill in the art at the time of the invention would have found it obvious to use a wide variety of filaments, including those having diameters less than 40 microns. The particular filament, and thus thread/yarn construction, is a function of the intended use of the tire and the specific construction of the anti-puncture device (e.g. number of layers). Furthermore, applicant has not provided a conclusive showing of unexpected results to establish a criticality for the claimed diameters.

With respect to claims 3 and 10, VECTRAN™ satisfies the claimed chemical formulas.

As to claim 7, VECTRAN™ is seen to be stretchable (at least to some degree) in the circumferential direction of the tire.

5. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazusa, Howland, Tyobo, and Loose as applied in claim 1 above and further in view of Miyamoto (JP 64-60402, of record).

As detailed above, Kazusa, in view of Howland, Tyobo, and Loose, is directed to an anti-puncture breaker construction comprised of at least one ply of polyester/polyarylate filaments (VECTRAN™). In this instance, though, Kazusa is silent as to the specific makeup of the at least one ply. Miyamoto, on the other hand, is directed to an extremely similar anti-puncture breaker construction comprised of at least

one ply, wherein said at least one ply is formed of threads/yarns running parallel to one another and inclined between 20 and 50 degrees with respect to the tire circumferential direction. As such, one of ordinary skill in the art at the time of the invention would have found it obvious to form the plies of Kazusa in accordance to the claimed invention (parallel threads). It is emphasized that Kazusa is silent as to the construction of the breaker plies- Miyamoto evidences the known construction of such breaker plies.

Response to Arguments

6. Applicant's arguments with respect to claims 1-3, 6-8, 10, 11, 13, 15, and 18 have been considered but are moot in view of the new ground(s) of rejection.

It is particularly noted that Tyobo and Loose have been applied to expressly evidence the known use of reinforcing assemblies having the claimed fineness and thread count (old claims 4 and 5). Furthermore, it is emphasized that Howland expressly suggests, for cost considerations, that preferred embodiments utilize fibers and yarns that are not formed of pure high performance fibers, such as KEVLAR™ para-aramid and VECTRAN™. This language clearly suggests that high performance fibers represent a non-preferred embodiment and a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments (see MPEP 2123).

Also, regarding Kazusa, applicant suggests that any modification of Kazusa with Howland would involve the preferred embodiment of Howland. The examiner respectfully disagrees. As detailed in the rejection above, Kazusa expressly suggests the use of a high performance fiber (KEVLAR™) and one of ordinary skill in the art at

the time of the invention would have recognized such a disclosure as being exemplary. One of ordinary skill in the art at the time of the invention would have found it obvious to use additional high performance fibers, such as VECTRAN™, since the tire industry recognizes the alternative use of each of the aforementioned high performance fibers, as shown for example by Howland. It is emphasized that the use of high performance fibers is within the scope of Kazusa. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use VECTRAN™ fibers in the tire construction of Kazusa.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Justin Fischer
/Justin R Fischer/
Primary Examiner, Art Unit 1791
October 20, 2008